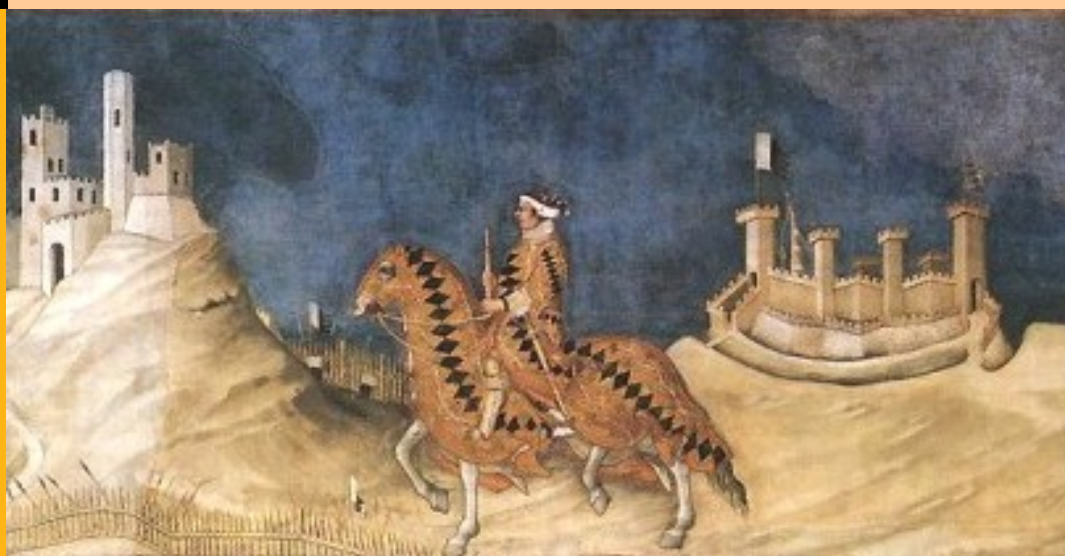**QUADERNI DEL DIPARTIMENTO**

DI ECONOMIA POLITICA E STATISTICA

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When Robertson was Keynesian and Keynes Robertsonian: a discussion between D.H.R. and J.M.K. in the early 1930s and the problems with the Monetary Circuit Theory. A note.

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Abstract – Supporters of the Monetary Circuit Theory argue that workers' or households' savings may be used to fix firms' losses and avoid crises. The question is reminiscent of a discussion that took place between Dennis Robertson (DHR) and Keynes on the *Treatise* (1930) about Keynes's idea that workers' savings might cover firms' losses. In this discussion, DHR denied that savings could correspond to firms' losses, arguing that savings do not exist independently of investment. Circuitists like Graziani seem to reiterate the *Treatise*'s mistake of maintaining that part of savings corresponds to firm's losses and are lent to firms to fix those losses, while neglecting the effects of those losses on output as DHR pointed out in the early 1930s.

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The (French-Italian-Canadian) Monetary Circuit Theory (MCT) emphasizes the role of the financial sector in ignition of the economic circuit. The emphasis is on the production side, that is, on the role of endogenous credit/money creation in financing production costs (mainly wage costs). The summary of the phases in the circuit drawn from Realfonzo (2006: 106-7) is sufficiently representative (see also e.g. Graziani 2003: 26-31; Lavoie 1992: 152-157):

1) Banks grant (…) the financing requested by firms, creating money (opening of the circuit);

2) Once financing has been obtained, firms buy inputs. Considering firms in the aggregate, their only expenditure coincides with the total wage bill; at this point money passes from firms to workers;

3) Once labour services have been purchased, firms carry out production (…)

4) At the end of the production process, firms put the goods on the market. It can be envisaged that firms set the sale price following a *mark-up* principle. Supposing workers have a propensity to consume equal to one, firms recover the entire wage bill and maintain ownership of a proportion (corresponding to the mark-up) of the goods produced. If the propensity to consume is less than one, … [workers] must make a further choice about how to use their savings, either hoarding (increase in cash reserves) or investing (purchase of shares). If all money savings are invested in shares on the financial market, firms manage to recover the whole wage bill;

5) Once goods and shares have been sold, firms repay the banks (closure of the circuit).

There many problems with the MCT that I critically touch upon in a forthcoming paper (Cesaratto forthcoming). The paper also positively proposes an integration of Keynes's finance (Keynes 1937) in an AD-demand led growth model based on the supermultiplier, overcoming those that appear to me as shortcomings of MCT.

The most well-known problem with MCT concerns the realization of profits: if banks finance wage costs only, so that AD originates exclusively from wages (phase 2), how can production be sold (phase 4) at a price that also includes firms' profits and interest payments to the banks? (see e.g. Febrero 2008: 111).

Another one concerns stage 4 of the circuit. In this phase if workers' savings "are invested in shares on the financial market, firms manage to recover the whole wage bill" and "repay the banks" (Realfonzo 2003: 3mimeo). In this regard Graziani (1994: 79 my translation) argues that: "there is only one event that may cause losses to firms, and this is the decision of savers not to spend part of their incomes but to hoard it instead as liquid balances". However, as long as savings are allocated

in financial markets, firms may issue bonds and "recapture the liquidity in this way" (ibid.) and repay their debts.

This idea that workers' or households' savings may be used to fix firms' losses and avoid crises is peculiar, to say the least.[1] The question is reminiscent of a discussion that took place between Dennis Robertson (DHR) and Keynes on the *Treatise* (1930) – the circuitists' Mecca accord to Graziani[2] – about Keynes's idea that workers' savings might cover firms' losses. In this discussion DHR denied that savings could correspond to firms' losses, arguing that savings do not exist independently of investment. Circuitists seem to reiterate the *Treatise*'s mistake of maintaining that part of savings corresponds to firm's losses and are lent to firms to fix those losses (Graziani 1994: 153-54; 2003: 154-5), while neglecting the effects of those losses on output as DHR pointed out in the early 1930s. They are therefore led to conclude that by "pooling household savings and relending it [sic] to firms, thus allowing them to refinance their deficit positions …" banks act in a way such that "crises can be avoided" (Rochon 1999: 15) in spite of accumulation of debt. This is not a problem for circuitists since in any period banks refinance the payment of interest on this "perpetual" debt (Lavoie 1992: 156; Rochon 1999: 13, 2005: 130-31).

This surprising resilience of output vis-à-vis the fall of AD is related to a third shortcoming of this approach: a lack of a clear integration with the theory of effective demand; but this point I will leave to the paper.

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[1] "[F]irms need to capture household savings by issuing securities …Funds will flow back to firms to pay off their debt" (Rochon 2005: 136). The same position is expressed by Lavoie (1992: 154-61), Rochon (2003: 129 and footnote 19; 2005: 130), Gnos (2006: 91), Febrero (2001: 11-12). In practice workers' saving is compensated by capitalists' dissaving (losses). Alternatively we may think that firms' unsold output is stored as (undesired) stocks. In this case losses are accounted for as inventories and households' savings correspond to investment in inventories. Be it as it may, these are very short period cases and it is difficult to believe that in any longer period firms issue shares to finance either losses or a prolonged undesired accumulation of stocks.

[2] "the followers of the circuit theory do not conceal …that between the two great works of Keynes they assign a clear preference to the *Treatise on Money* rather than to the *General Theory*" (Graziani 1994: 27, my translation).

Unfortunately, the referees suggested the exclusion of an appendix on the discussion between DHR and Keynes from the mentioned forthcoming paper. This is reproduced below.[3]

<div align="center">***</div>

DHR's *Banking Policy and the Price Level* (1926) (BPPL) anticipated the central tenet of the *General Theory* that, contrary to traditional theory, it is saving that adjusts to investment. BPPL followed the publication of *A Study of Industrial Fluctuation* in 1915, in which DHR conducted a careful study of the real determinants of investment, that he mainly found in technical change. Economic cycles were therefore attributed to the occurrence of main innovations and not to psychological waves or errors in monetary policy.[4]

Although in BPPL the adjustment of saving to investment took place through variations in price level and not output, DHR implied that in the long-run output could only adjust too. In a word, BPPL is *General Theory* without the income multiplier. This progressive role of DHR is at odds with his post-*General Theory* role as custodian of traditional doctrine.[5] Be it as it may, in the early

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[3] Incidentally, these comments are based on some notes written in 1981/82 after my graduation at "La Sapienza" with a thesis on Dennis Robertson (1890-1963) under the supervision of Pierangelo Garegnani.

[4] Robertson was not aware of the Wicksellian theory, but similar analysis were advanced by Ralph Hawtrey (1879-1975) in the U.K. and by Wesley Mitchell (1874-1948) in the U.S.. The latter is strangely never recalled as a forerunner of Minsky. As to the psychological waves of optimism and pessimism, D.H.Robertson (1915, p. 9) rejected any subjective explanation of trade cycles based on the "state of confidence" arguing that: "Granted that [the entrepreneurs'] states of mind are immediately responsible for industrial dislocation, it does not follow that they are spontaneously generated; it seems only natural, in absence of proof, to give him the benefit of the doubt, and assume that they are at least induced, however irrationally, by external facts. Hence this objection also to the search for such facts fall to the ground". In spite of the intimacy to JMK, the early heterodox Robertson appears in this regard quite distant from what Keynes later named "animal spirits", something that, in my opinion, should be expunged from heterodox economics, along the exaggerated importance attributed to "uncertainty". Roberston, like Sraffa, did not like subjectivism in economics.

[5] Personal factors - possibly Keynes's public achievements - might have influenced his retreat into tradition. Pierangelo Garegnani who supervised my undergraduate thesis on DHR suggested this to me. Presumably, Garegnani heard this in Cambridge from direct witnesses from those years.

1930s DHR was still on the untraditional side, moving some "Keynesian" criticism to the *Treatise,* as we shall see, while JMK himself was taking new directions towards the *General Theory*.

To convey the sense of the controversy, suppose that given a certain constant investment level I in a certain period, households decide to save a larger part of their income. For convenience, let us express their preference as $S > I$, although this is not correct, as we shall see. This choice will determine a loss to producers of consumption goods. In a letter to DHR written at a later stage of the controversy, Keynes (1933: 307-8) summarized it thus: according to DHR the difference between S and I is constituted by hoarding (H), while according to Keynes the difference is constituted by firms' losses ($-\cup Q$). That is:

$$S - I = H \text{ or } S = I + H \qquad (1)$$

according to DHR, and:

$$S - I = -\cup Q \text{ or } S = I - \cup Q \qquad (2)$$

according to Keynes.

The latter concluded (ibid) that since $H = -\cup Q$, there was a substantial coincidence of the two definitions.[6] However, DHR firmly denied any coincidence and argued that, losses being losses, they and the hoarding that caused them could not both be part of 'saving'. That is, equations (1) and (2) are both wrong:

> So far as 'Savings' *are* losses, they can't be 'employed' at all – there is nothing to employ![7]
> As Mr. Hawtrey was the first to show me, the difficulty about Mr. Keynes' "Saving" has always been that while setting out to be an expression for a causal factor, it ends up by being simply a quantitative measure of results; Mr. Keynes' "excess savings" do not *cause* losses, they – for the most part – *consist* of losses (DHR 1933b: 709, italics in the original).

DHR is arguing that contrary to widely held opinion (even among professional economists with little deep understanding of the *General Theory*), savings have not, so to speak, an independent existence, that is independent of the investment they correspond to. Suppose an act of hoarding in period *t-1* that leaves part of the output unsold. If perishable, unsold output amounts to losses for

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[6] "DHR's 'hoarding' is, by definition, precisely the same thing as, and exactly equal to, JMK's 'excess of saving over investment'! Or more strictly, hoarding is - Q where - Q is the *change* during the 'day' in the current excess of saving over investment. JMK means by 'saving' nothing but the sum of 'hoarding' (in DHR's sense) and investment' (ibid: 307 italics in original). DHR annotated the three sentences writing, respectively, No, Yes, No.

[7] Annotation by DHR at the margin of the letter from Keynes (ibid: 308).

the firm. So although the household might be successful at hoarding, in no sense is this a saving.[8] Indeed, saving (one agent spending less than her receipts) is in this case precisely compensated by the dissaving (losses) of another unit (who has spent more than her receipts). A phrase of DHR reveals how far he (1931: 410) was ahead of Keynes in the early 1930s: "the essential paradox that Saving is the one thing that cannot be saved". [9] One wonders whether it was this precious dictum that inspired Keynes's thrift paradox. Indeed, relying on the revolutionary concepts of the marginal propensity to save and of the multiplier, DHR's reasoning later found rigorous expression in Keynes's thrift paradox: an attempt by the community to save more by raising its marginal propensity to save is bound to fail. While the amount of saving remains unchanged, the level of income falls so that the saving supply at the new higher saving propensity is equal to the given level of investment. From BPPL to the early 1930s, both JMK and DHR saw in "'hoarding' …the dominant feature of trade depression" (DHR 1931: 409), but DHR was ahead in recognizing that "hoarding" not matched by investment would be "abortive" (a term of BPPL), not generating additional saving but only leading to lower output and employment.[10]

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[8] The *short-period* exception regards that part of unsold output that can be stocked as investment in inventories. This part of hoarding translates into additional savings. As noted by Wray 1991: 959: "sales of new paper to capture worker saving merely represent the 'pecuniary accountancy' of inventory accumulation." I remember learning this in my first year of economics from an earlier edition of Graziani's excellent macroeconomic textbook. Suppose that from sometime in previous periods investment is $I = 100$ units of account (ua) and remains so. Given a marginal propensity to save $c = 0.8$, output is *500* ua and expected consumption demand *400* ua. Suppose then that households decide to double their saving propensity ($s = 0.4$) and hoard 100 Euros in addition to their usual savings (100 ua). As a result 100 ua of consumption goods are left unsold. If stocked, investment will rise to I' = 200 ua and all 200 ua will consist of savings. If unsold output consists of perishable goods, saving remains at 100 ua. The destiny of the 100 ua of additional hoarding is not very interesting. It may be lent as temporary relief to indebted firms (as circuitists would like) or may be spent by households in subsequent periods, when income falls to adjust savings to the given investment level.

[9] This is why I said above that writing $S > I$ was inexact. This notation would evoke Ohlin's discrepancy between *ex ante* saving and *ex ante* investment which, as seen in fn 12, was rejected by Keynes (1937 b). However, in the early 1930s, only DHR realised the mistake.

[10] Although in BPPL and later writings DHR assumed that the effects of a "decline in the demand for a group of commodities is met not at all either by a restriction of output, or by a restriction of

Although Keynes defended the continuity between the *Treatise* – defined "confusing and incomplete" – and the *General Theory*, he fully acknowledged that DHR (in *Saving and Hoarding* and the related discussion) was pointing in the same direction (possibly a "first approximation") undertaken in the second book:

> When Mr. Robertson says that there is an excess of saving over investment, he means literally the same thing as I mean when I say that income is falling, and the excess of saving in his sense is exactly equal to the decline of income in my sense. … Thus Mr. Robertson's method might be regarded as an alternative attempt to mine (being perhaps, a first approximation to it…) (1936: 78).

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sales and accumulation of stocks, but entirely by a reduction of prices sufficient to market the original output", he points out that "[i]t need hardly be emphasized that such a situation is unstable, and likely to generate an accumulation of unsold stocks and a restriction of output and employment" (DHR1933a: 401). Notably, at the time of the controversy both JMK and DHR did not talk in terms of variations in the propensity to save but rather in the desire for liquid balances.

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